

Development of the Graduate Course in Scientific and Regulatory Basis for Environmental Protection in Nuclear Fuel Cycle

Executive Summary

As we mark significant progress with the Global Nuclear Energy Partnership (GNEP) Initiative and the Generation IV project, we need to establish in parallel technical capability to regulate the advanced reactors and fuel-cycle facilities for safety, security, and environmental protection for the public. As avoidance of environmental contamination is of paramount importance for the public acceptance and safety, it is essential to expose the new generation of nuclear engineers to the environmental safety fundamentals including regulations, and equip them with basic computational capability. The prospective course will be a core course in the curriculum development for Safety, Security, and Environmental Protection in Nuclear Fuel Cycle planned by the Nuclear Engineering Department of the University of California-Berkeley.

The project was funded in 2007 under the above title [NRC Grant No. NRC-38-07-506] for one year. The present proposal requests continuation of the project in the second year. The main goals for the second year will be to improve the course materials and website with the feedback from the class to be offered in Fall 2008 semester for the first time, and to start development of distance education features.